

LAKELAND

CHEMICAL SPECIALTIES, INC.

W140 N5090 LILLY ROAD
MENOMONEE FALLS, WI 53051

24 Hour Emergency: (800) 424-9300 (CHEMTREC)

Phone: (262) 781-1350

MATERIAL SAFETY DATA SHEET

DATE ISSUED 04/06

PRODUCT NAME: T-4000 ORGANIC PERETRANT AND DISPERSANT

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SECTION 1: OSHA HAZARDOUS CLASSIFICATIONS

CORROSIVE TO EYES AND SKIN. AVOID INHALATION OF MISTS OR VAPORS.

SECTION 2: HAZARDOUS INGREDIENTS

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>TWA/TLV</u>
ACETIC ACID	64-19-7	10 PPM
PROPIONIC ACID	79-09-4	10 PPM (TWA)

SECTION 3 : FIRST AID INFORMATION

EYE EXPOSURE: FLUSH IMMEDIATELY WITH COPIOUS AMOUNTS OF TAP WATER OR NORMAL SALINE (MINIMUM OF 15 MINUTES).
TAKE EXPOSED INDIVIDUAL TO A HEALTH CARE PROFESSIONAL, PREFERABLY AN OPHTHALMOLOGIST, FOR FURTHER EVALUATION.

SKIN EXPOSURE: WASH EXPOSED AREA WITH PLENTY OF WATER. REPEAT WASHING. REMOVE CONTAMINATED CLOTHING
AND WASH THOROUGHLY BEFORE REUSE. IF IRRITATION PERSISTS CONSULT A HEALTH CARE PROFESSIONAL.

INHALATION: IF EXPOSURE BY INHALATION IS SUSPECTED, IMMEDIATELY MOVE EXPOSED INDIVIDUAL TO FRESH AIR.
IF INDIVIDUAL EXPERIENCES NAUSEA, HEADACHE, DIZZINESS, HAS DIFFICULTY IN BREATHING OR IS CYANOTIC,
SEEK A HEALTH CARE PROFESSIONAL IMMEDIATELY.

INGESTION: DO NOT INDUCE VOMITING. RINSE WITH COPIOUS AMOUNTS OF WATER OR MILK, FIRST. IRRIGATE THE
ESOPHAGUS AND DILUTE STOMACH CONTENTS BY SLOWLY GIVING ONE (1) TO TWO (2) GLASSES OF WATER OR MILK
AVOID GIVING ALCOHOL OR ALCOHOL RELATED PRODUCTS. IN CASES WHERE THE INDIVIDUAL IS SEMI-COMATOSE,
COMATOSE OR CONVULSING. DO NOT GIVE FLUIDS BY MOUTH. IN CASE OF INTENTIONAL INGESTION OF THE PRODUCT
SEEK MEDICAL ASSISTANCE IMMEDIATELY; TAKE INDIVIDUAL TO NEAREST MEDICAL FACILITY.

SECTION 4: PRIMARY ROUTES OF EXPOSURE

1. EFFECTS FROM ACUTE EXPOSURE:

EYE EXPOSURE: VERY HAZARDOUS IN CASE OF EYE CONTACT (IRRITANT, CORROSIVE). INFLAMMATION OF THE EYE IS
CHARACTERIZED BY REDNESS, WATERING, AND ITCHING

SKIN EXPOSURE: HAZARDOUS IN CASE OF SKIN CONTACT (CORROSIVE, IRRITANT). SKIN CONTACT MAY PRODUCE BURNS.
SKIN INFLAMMATION IS CHARACTERIZED BY ITCHING, SCALING, REDDENING, OR OCCASIONAL, BLISTERING.

INHALATION: HAZARDOUS IN CASE OF INHALATION. EFFECTS WILL DEPEND ON CONCENTRATION AND LENGTH OF TIME OF EXPOSURE.

INGESTION: INGESTION IS NOT EXPECTED TO BE A PRIMARILY ROUTE OF EXPOSURE.

2. EFFECTS FROM CHRONIC EXPOSURE:

THE EFFECTS FROM CHRONIC EXPOSURE TO THIS PRODUCT HAVE BEEN FULLY EVALUATED.

SECTION 5: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS: NOT TESTED. EXPECTED TO BE MODERATELY TOXIC BASED ON COMPONENTS.

IRRITANT/SENSITIZATION EFFECTS: VERY HAZARDOUS IN CASE OF EYE CONTACT (IRRITANT, CORROSIVE).

INFLAMMATION OF THE EYE IS CHARACTERIZED BY REDNESS, WATERING AND ITCHING

HAZARDOUS IN CASE OF SKIN CONTACT (CORROSIVE, IRRITANT). SKIN CONTACT MAY PRODUCE BURNS.

SKIN INFLAMMATION IS CHARACTERIZED BY ITCHING, SCALING, REDDENING, OR OCCASIONALLY BLISTERING.

HAZARDOUS IN CASE OF INHALATION. EFFECTS WILL DEPEND ON CONCENTRATION AND LENGTH OF TIME OF EXPOSURE.

CARCINOGENIC POTENTIAL: NOT TESTED BY BUCKMAN LABORATORIES. NOT SHOWN AS A CARCINOGEN BY OSHA, IARC, OR NTP.

TARGET ORGAN EFFECTS: MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: UPPER RESPIRATORY TRACT, SKIN, EYES.

OTHER HEALTH EFFECTS: ONE KNOWN. VAPOR MAY IRRITATE EYES, NOSE, AND THROAT. SENSITIZATION IS RARE, BUT HAS BEEN REPORTED IN SOME HYPERSENSITIVE INDIVIDUALS.

SECTION 6: ENVIRONMENTAL TOXICOLOGICAL INFORMATION

LC50=<0.1 mg/l 48 HOURS CERIODAPHNIA DUBIA

LC50=0.31mg/l 96 HOURS FATHEAD M 0.31 mg/L

SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: CLEAR, LIGHT AMBER LIQUID

ODOR: VINEGAR-LIKE, PUNGENT ACIDIC

DENSITY @25°C: 1.08 g/cm³ at 25°C (77°F)

FLASH POINT: CLOSED CUP:>100°C (212°F). (PENSKY-MARTENS)

**FREEZING POINT: MAY START TO SOLIDIFY AT 16.6°C (61.9°F) BASED ON DATA FOR : ACETIC ACID. WEIGHT AVERAGE
10.16°C(13.7°F)**

BOILING POINT: THE LOWEST KNOWN VALUE IS 118°C (244.4°F) (ACETIC ACID). WEIGHTED AVERAGE: 134.5°C (277.1°F)

SOLUBILITY: EASILY SOLUBLE IN COLD WATER. EASILY SOLUBLE IN HOT WATER

pH (NEAT): 2.5 (ACIDIC)

PH: (100PPM IN WATER): NA

VAPOR PRESSURE: NA

O/W PARTITION COEFFICIENT: NA

OXIDIZING/REDUCING PROPERTIES: NA

VISCOSITY: DYNAMIC: 45cP

ADDITIONAL Ph INFORMATION NA

NOTE: THE PHYSICAL DATA PRESENTED ABOVE ARE TYPICAL VALUES AND SHOULD NOT BE CONSTRUED AS SPECIFICATIONS.

SECTION 8 FIRE AND EXPLOSION INFORMATION

FLAMMABLE LIMITS: NA

EXTINGUISHING MEDIA: WATER FOG, CARBON DIOXIDE, FOAM, DRY CHEMICAL.

**SPECIAL FIREFIGHTING PROCEDURES: FIRE FIGHTERS SHOULD WEAR POSITIVE PRESSURE SELF-CONTAINED
BREATHING APPARATUS (SCBA) AND FULL TURNOUT GEAR.**

SECTION 9: REACTIVITY INFORMATION

STABILITY: STABLE UNDER NORMAL CONDITIONS OF USE AND STORAGE

**INCOMPATIBILITY: STRONG ACID, STRONG BASES, STRONG OXIDIZERS, AND REDUCING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCTS: ACETIC ACID VAPORS MAY BE EVOLVED.**

SECTION 10: HANDLING PRECAUTIONS

IF SPLASHING CAN OCCUR, A FACE SHIELD IS ADVISABLE

EYE WASH FOUNTAINS IN THE WORK PLACE ARE STRONGLY RECOMMENDED.

CHEMICAL RESISTANT GLOVES, INDIRECT VENTILATION GOGGLES, BODY-PROTECTIVE CLOTHING, AND CHEMICAL RESISTANT SAFETY SHOES ARE REQUIRED.

PROVIDE DILUTION VENTILATION TO CONTROL VAPOR AND/OR MIST LEVEL. WHEN MISTING MAY OCCUR IN THE WORK AREA. A NIOSHA/MSHA APPROVED RESPIRATOR MAY BE REQUIRED. USE A RESPIRATOR APPROVED FOR THE MATERIAL AND LEVEL OF EXPOSURE. A COMPREHENSIVE RESPIRATORY PROTECTION PROGRAM IS NEEDED WHEN RESPIRATORS MUST BE USED.

SECTION 11: SATISFACTORY MATERIALS OF CONSTRUCTION

POLYPROPYLENE

TEFLON

PVC-RIGID

BUNA-N RUBBER

NEOPRENE

SILICONE RUBBER

POLYETHYLENE-CROSSLINK

POLYETHYLENE-HIGH DENSITY

POLYETHYLENE-LOW DENSITY

BUTYL RUBBER

FIBERGLASS-REINFORCED POLYESTER

DOW SILLASTIC TUBE

NOTE: WITH RESPECT TO ALL OTHER MATERIALS NOT LISTED ABOVE, USER SHOULD BE AWARE THAT USE OF SUCH MATERIALS THIS PRODUCT MAY BE HAZARDOUS AND RESULT IN DAMAGES TO SUCH MATERIALS AND OTHER PROPERTY AND PERSONAL INJURIES. NO DATA CONCERNING SUCH MATERIALS NOT LISTED ABOVE SHOULD BE THE USER.

SECTION 12: SPILL, LEAK, AND DISPOSAL PROCEDURES

SPILL AND LEAK RESPONSE GUIDELINES:

IMPORTANT: BEFORE RESPONDING TO A SPILL OR LEAK OF THIS PRODUCT, REVIEW EACH SECTION OF THIS MSDS. FOLLOW THE RECOMMENDATIONS GIVEN IN THE HANDLING PRECAUTION SECTIONS.

CHECK THE FIRE AND EXPLOSION DATA SECTION TO DETERMINE IF THE USE OF NON--SPARKING TOOLS IS MERITED.

INSURE THAT SPILLED OR LEAKED PRODUCT DOES NOT COME INTO CONTACT WITH MATERIALS LISTED AS INCOMPATIBLE.

IF IRRITATING FUMES ARE PRESENT, CONSIDER EVACUATION OF ENCLOSED AREA.

INITIALLY MINIMIZE AREA AFFECTED BY THE SPILL OR LEAK. BLOCK ANY POTENTIAL ROUTES TO WATER SYSTEMS (E.G., SEWER, STREAMS, LAKES, ETC.). BASED ON THE PRODUCT'S TOXICOLOGICAL AND CHEMICAL PROPERTIES, AND ON THE SIZE AND LOCATION OF THE SPILL OR LEAK, ASSESS THE IMPACT ON CONTAMINATED ENVIRONMENTS (E.G. WATER SYSTEMS, GROUND, AIR EQUIPMENT ETC.). THERE ARE NO METHODS AVAILABLE TO COMPLETELY ELIMINATE ANY TOXICITY THIS PRODUCT MAY HAVE ON AQUATIC ENVIRONMENTS. MINIMIZE ADVERSE EFFECTS ON THESE ENVIRONMENTS. DETERMINE IF FEDERAL, STATE, AND/OR LOCAL RELEASE NOTIFICATION IS REQUIRED (SEE REGULATORY CLASSIFICATIONS SECTION OF THIS MSDS). RECOVER AS MUCH OF THE PURE PRODUCT AS POSSIBLE INTO APPROPRIATE CONTAINERS. LATER, DETERMINE IF THIS RECOVERED PRODUCT CAN BE USED FOR THIS INTENDED PURPOSE . ADDRESS CLEAN-UP OF CONTAMINATED ENVIRONMENTS. SPILL OR LEAK RESIDUALS MAY HAVE TO BE COLLECTED AND DISPOSED OF. CLAY, SOIL, OR COMMERCIALY AVAILABLE ABSORBENTS MAY BE USED TO RECOVER ANY MATERIAL THAT CAN NOT READILY BE COVERED AS PURE PRODUCT. FLUSHING RESIDUAL MATERIAL TO AN INDUSTRIAL SEWER IF PRESENT AT THE SITE OF THE SPILL OR LEAK INCIDENT, MAY BE ACCEPTABLE IF AUTHORIZED APPROVAL IS OBTAINED. IF PRODUCT AND/OR SPILL/ LEAK RESIDUALS ARE FLUSHED TO AN INDUSTRIAL SEWER, INSURE THAT THEY DO NOT COME INTO CONTACT WITH INCOMPATIBLE MATERIALS. CONTACT THE PERSON (S) RESPONSIBLE FOR THE OPERATION OF YOUR FACILITY'S INDUSTRIAL SEWER SYSTEM PRIOR TO INTENTIONALLY FLUSHING OR PUMPING SPILLS OR LEAKS OF THIS PRODUCT TO THE INDUSTRIAL SEWER.

DISPOSAL GUIDELINES

NOTE: FOLLOWS FEDERAL, STATE, AND LOCAL REGULATIONS GOVERNING THE DISPOSAL OF WASTE MATERIALS.

NEAT PRODUCT: CONTACT YOUR BUCKMAN REPRESENTATIVE OR BUCKMAN LABORATORIES, INC., AT (901) 278-0330.

CONTAMINATED MATERIALS: DETERMINE IF WASTE CONTAINING THIS PRODUCT CAN BE HANDLED BY AVAILABLE INDUSTRIAL EFFLUENT SYSTEM OR OTHER ON-SITE WASTE MANAGEMENT UNIT. IF OFF-SITE MANAGEMENT IS REQUIRED, CONTACT A COMPANY EXPERIENCED IN INDUSTRIAL WASTE MANAGEMENT. THIS PRODUCT IS NOT SPECIFICALLY LISTED IN 40 CFR 261 AS A RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) HAZARDOUS WASTE. HOWEVER, SPILL OR LEAK RESIDUALS MAY MEET THE CRITERIA OF A CHARACTERISTIC HAZARDOUS WASTE UNDER THIS ACT. CHECK THE CHARACTERISTICS OF THE MATERIAL TO BE DISPOSED OF AND/OR THE PHYSICAL AND REACTIVITY DATA GIVEN IN THIS MSDS FOR THE NEAT PRODUCT.

CONTAINER DISPOSAL: EMPTY CONTAINERS, AS DEFINED BY APPROPRIATE SECTION OF THE RCRA, ARE NOT RCRA HAZARDOUS WASTE. HOWEVER, INSURE PROPER MANAGEMENT OF ANY RESIDUALS REMAINING IN CONTAINER.

SECTION 13: TRANSPORTATION AND SHIPPING INFORMATION

DOT SHIPPING NAME: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(PROPIONIC ACID, ACETIC ACID)8, UN3265, PGIII (ERG GUIDE 153)

SECTION 14: REGULATORY INFORMATION

THE FOLLOWING REGULATIONS ARE KNOWN TO APPLY TO THE USE AND DISPOSAL OF THIS PRODUCT.

ADDITIONAL FEDERAL, STATE AND LOCAL REGULATIONS MAY ALSO BE APPLICABLE.

SARA (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES LISTED: NO COMPONENTS OF THIS PRODUCT ARE LISTED.

SARA 312 HAZARDOUS CATEGORY: IMMEDIATE (ACUTE) HEALTH HAZARD

SARA 313 TOXIC CHEMICALS LISTED: NO COMPONENTS OF THIS PRODUCT ARE LISTED.

CERCLA (COMPREHENSIVE ENVIRONMENTALLY RESPONSE, COMPENSATION AND LIABILITY ACT):

ACETIC ACID RQ=5000 LBS.

PROPIONIC ACID RQ=5000 LBS.

RCRA (RESOURCE CONSERVATION AND RECOVERY ACT) LISTED HAZARDOUS WASTE: NO COMPONENTS OF THIS PRODUCT ARE LISTED.

CWA (CLEAN WATER ACT) LISTED SUBSTANCES: NO COMPONENTS OF THIS PRODUCTS ARE LISTED.

FDA (FOOD AND DRUG ADMINISTRATION): THIS PRODUCT NOT APPROVED FOR FOOD CONTACT USES.

TSCA (TOXIC SUBSTANCES CONTROL ACT) APPLICABILITY: ALL COMPONENTS ARE LISTED ON TSCA INVENTORY.

FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT): THIS PRODUCT IS NOT A REGISTERED PESTICIDE.

HMIS/NPCA RATINGS: HEALTH 3: FLAMMABILITY 1: REACTIVITY 1

NFPA RATINGS: HEALTH 3: FLAMMABILITY 1: REACTIVITY 1

STATE REGULATIONS

VARIOUS STATE RIGHT TO KNOW ACTS: NON-PROPRIETARY HAZARDOUS CHEMICALS ARE LISTED IN SECTION 2 OF THIS MSDS.

THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET REFLECTS THE LATEST INFORMATION AND DATA THAT WE HAVE ON HAZARDOUS PROPERTIES, AND HANDLING OF THIS PRODUCT UNDER THE RECOMMENDED CONDITIONS OF USE. ANY USE OF THIS PRODUCT OR METHOD OF APPLICATION WHICH IS NOT DESCRIBED IN THE DATA SHEET IS THE RESPONSIBILITY OF THE USER. THIS MATERIAL DATA SAFETY SHEET WAS PREPARED TO COMPLY WITH THE OSHA HAZARD COMMUNICATION REGULATION WHILE SOME COMPONENTS ARE CLAIMED TRADE SECRET UNDER OSHA HAZARD COMMUNICATIONS REGULATIONS, ALL OSHA HAZARDS ASSOCIATED WITH THE TRADE SECRET COMPONENT(S), IF CONTAINED IN THIS PRODUCT, ARE FULLY DISCLOSED. SELLER MAKES NO OTHER WARRANTY OR REPRESENTATION OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT, INCLUDING NO IMPLIED WARRANTY OR MERCHANTABILITY OF FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. NO SUCH WARRANTIES SHALL BE IMPLIED BY LAW AND NO AGENT OF SELLER IS AUTHORIZED TO ALTER THIS WARRANTY IN ANY WAY EXCEPT IN WRITING WITH A SPECIFIC REFERENCE TO THIS WARRANTY.